

# **School Meals from Connecticut Farms**

## **Background Report for Economic Feasibility Study**

Prepared by Debbie Humphries, PhD, MPH

For The Hartford Food System  
and  
The Connecticut Department of Agriculture

March 2005

## Table of Contents

Connecticut Farm to School Programs	1
Origins	1
Current Situation	2
Farm to School in Other States	3
Models of Farm to School Procurement	3
Forager Model	4
Wholesale Model	4
Direct Sales	5
Department of Defense	5
Grower Collaboratives	6
School Food Policies	7
Food Crops Produced in Connecticut	8
Season Extension and Food Processing Capacity in Connecticut	8
Conclusions	8
References	10

In 2004 the Connecticut State Department of Agriculture, in collaboration with the Hartford Food System, received a grant from the USDA Federal-State Marketing Improvement Program. This grant is to increase the Farm to School capacity within the State of Connecticut. Farm to School programs work to incorporate food from local farms into school meals and also to provide educational materials to increase student awareness of nutrition and agricultural issues. An economic feasibility study is in process for Connecticut, to investigate farm to school potential. The feasibility study will incorporate a background report on Farm to School Programs in Connecticut and other states, a survey of farmers and schools, and will investigate possible pathways to economic feasibility of the Farm to School program. This background report is the first step of the economic feasibility study.

### **Connecticut Farm to School Programs**

Origins. The Farm to School program in Connecticut was one of the first in the country, beginning in the mid-1990s. From 1994-1996 the Farm Fresh Start program was implemented in the Hartford School District, with the assistance and leadership of the Hartford Food System. This program combined connections with local farmers and culinary assistance to provide fresh, local foods during an eight week period each fall and spring. Connecticut Farm to School programs are challenged by the limited overlap between the school season (September to June) and the agricultural season (May to October). The Farm Fresh Start model focused on an eight week period in September and October and another eight week period in May and June. During those two periods, local produce was integrated into the school menus.

One of the challenges addressed by the Farm Fresh Start program was the distribution of produce to the schools. The choice of the Hartford School District (38 schools, ~25,000 students), the largest in the state, increased the complexity of the distribution issues. Farmers found it too difficult to make direct deliveries to schools for the small quantities that were needed in each school. The program identified a local food wholesaler who was able to delivery to each school. The wholesaler purchased all needed produce items, identified for the school district which foods were local, and to deliver the produce directly to each of the schools involved.

During the Farm Fresh Start program, the Hartford Public School Food Service purchased thousands of pounds of local produce. For example, from Sept 6 to November 15,

1996 the three pilot Farm Fresh Start schools purchased approximately 17,495 pounds of Connecticut grown fruits and vegetables; this amount represented 76 percent of their total cost of produce purchased in the eleven-week period (from Healthy Farms, Healthy Kids). Records are not available of the number of farmers involved in the program or the amount of money each farmer received through Farm Fresh Start purchases.

The Farm Fresh Start Program was designed to work within the cafeteria and also in the classroom. However, when the Hartford Food System stopped providing the program with a chef and other programmatic assistance the viability of the Farm Fresh Start decreased. At this point the Hartford School District purchases all produce through the same local wholesaler, but it does not identify which produce items are local and which are not. In addition, classroom activities around farm to school are not in systematic use.

Current Situation. In the winter of 2002 Mary Ragno of the Connecticut State Department of Education invited Rick Macsuga from the Connecticut State Department of Agriculture to speak and have a booth at the Connecticut School Food Service Directors' Annual Meeting. Rick's talk centered on the topic of whether Connecticut farmers and local school food services could become partners (Farm to School Program, R. Macsuga). Growing out of that presentation, a number of school districts are looking for local connections. For example, the South Windsor school district (7 schools, ~5000 students) purchases some produce directly from a local farmer, including a regular baked potato bar that is offered in the middle school (conversation with Mary Ann Lopez, February 1, 2005).

Rick Macsuga reports that currently many schools are buying apples and pears. Schools have also expressed interest in other commodities such as late season peaches, musk melon, watermelon, strawberries, peppers, green beans, carrots, winter squash, and potatoes.

**Highlights of the 2002-2003 programs**

- South Windsor School System used posters and banners to promote Connecticut Grown products and the area farmers from which they're purchasing.
- South Windsor schools provided a CT Grown potato bar two days a week in their cafeterias and promoted the nutritional value of apples purchased from a local orchard.
- Meriden School System has been buying Connecticut apples direct from Connecticut farmers for a number of years and has expanded into vegetables and purchased \$3,000 worth of late-season vegetables from an area grower.
- The West Haven School system, after receiving their first delivery of 32 cases of Connecticut Grown apples, reported to the Department of Agriculture that "the apples were gorgeous - wonderful, rich flavor. The food service staff were thrilled with them and plan to do more."

(Rick Macsuga, Dec 3, 2004;  
<http://www.ct.gov/doag/cwp/view.asp?Q=270554&A=1401>

Approximately 24 farmers and 14 school systems (districts) were involved in the School Meals From Connecticut Farms initiative in 2004.

### **Farm to School in Other States**

According to the National Farm to School Program website, there are now Farm to School programs in 16 states. Several organizations have been at the forefront of research and evaluation on farm to school programs. The Center for Food & Justice at Occidental College in Los Angeles coordinates national farm to school efforts in collaboration with the Community Alliance of Family Farms, Pennsylvania State University, New Jersey Urban Ecology Program, Community Food Security Coalition, Cornell Farm to School Program, and the California Department of Education (see <http://www.farmtoschool.org/>). The Center for Food & Justice has worked to support Farm to School programs nationwide, primarily as a clearinghouse for work that is done by others. The Center has described a number of different distribution models, provided references for how to put together farm to school programs, and has also collected important resources describing impact of farm to school programs on school districts and school children (see e.g., Evaluation of the Effectiveness of the Salad Bar Program, <http://www.farmtoschool.org/ca/saladbareval.pdf>). One of the tools used in the California Farm to School program is implementing salad bars, which provide fresh fruits and vegetables. This model has been extensively studied and evaluated, with detailed information available on changes in sales for farmers, costs of purchasing salad bar equipment, changing the kitchen, setting up the salad bars, and changes in school meal purchases. (See, e.g., The Crunch Lunch Manual; Rethinking School Lunch)

### **Models of Farm to School Procurement**

Success of Farm to School programs depends on getting farm products to the schools in a timely manner. In their October 2004 report to the W.K. Kellogg Foundation, the Center for Food & Justice described the five models of food distribution they have observed within Farm to School programs. These include a forager model, wholesale, farmers market (direct sales), Department of Defense and cooperatives (Healthy Farms & Healthy Kids, October 2004). Each of these models is appropriate for a particular subset of schools and farmers, and it may be helpful for states to develop a number of alternative ways for produce procurement. Farmers and school food service personnel will need to adapt to each other to make these programs a success.

Forager Model. Foragers traditionally collected whatever food was available, covering a particular area in search of food items. Within the farm to school context, foraging is used to describe a third party organization that works with schools and farmers to find out what agricultural products are available from farmers and needed by school districts, and then to make the appropriate connections. This model is active in a number of settings including the Davis Joint Unified School District (Davis JUSD) in California and within Connecticut. The Davis JUSD relies on the Community Alliance for Family Farms to identify appropriate local sources for needed produce items. In Connecticut, the Hartford Food System and the Department of Agriculture have worked to assist school districts when they are seeking out a particular local agricultural item, and have worked to assist farmers when they have a crop, such as strawberries, that they want to sell to the schools.

The forager model has the benefit of making direct connections between farmers and schools. However, the forager has often been funded through grants, and the cost of the forager has not been carried by product sales. Farmers using this model can generally count on prices that are between wholesale and retail. Sales and quantities from this model vary significantly. Some of the variation is from menu differences that demand different levels of produce purchasing, variation is also due to differences in local growing seasons, different levels of commitment to purchasing local products and differences in number of students. The Santa Monica-Malibu Unified School District in California purchased \$41,901 worth of produce from 11 farmers between September 2000 and June 2001. The farmers averaged \$3,809.18 income during the 10 month school year, and total sales to individual farmers ranged from \$356 to \$17,854. However, in the Hannibal School District in New York, the purchases from farmers during the month of September 2003 were a total of \$1,340 from two farmers (Farmer Resource Guide, pp. 60-61).

Wholesale Model. Some farmers have a large enough volume that they are able to sell at a wholesale price, and still be profitable. Such farmers are then able to participate in the farm to school program without any extra work on their part. This model is most effective when there are local produce wholesalers that are already connected to schools. In the Hartford Food System's pilot Farm Fresh Start program from 1994-1996 they found the size of the Hartford School District made it difficult for farmers to deliver directly to the 35 schools in the district. Working through a local wholesaler, the Hartford School District was able to purchase primarily local products during the 16 weeks of the program. During an eleven week period in the fall of

1996, three schools purchased 76% of their produce budget through the Farm to School program. Details on the number of farmers involved and the average amount paid to each farmer are not available.

Direct Sales. Some schools go directly to farmers, either by asking an outside organization such as the state Department of Agriculture or a forager organization, or by identifying a local farmer independently. The economic impact of such sales is difficult to evaluate.

Department of Defense. Another model of procurement utilizes the Department of Defense produce buying system. In 1994 the Department of Defense began a pilot program in eight states (South Dakota, Wyoming, Colorado, New Hampshire, Florida, Texas, Maryland and South Carolina) where institutional buyers for schools, prisons and Indian reservations could purchase state grown produce from Department of Defense buyers. The program is currently operational in schools in New Mexico, Kentucky, North Carolina, Michigan, Mississippi, Florida, Georgia and New Jersey. Illinois and New York are in the process of developing a program (Department of Defense Produce Buying website, <http://www.dscp.dla.mil/subs/produce/school.htm>; Farm to School website, <http://www.farmtoschool.org/faq.htm#eight>). One of the benefits of this system is that schools can use commodity purchase funds for produce – they are given a certain credit, based on federal school meal guidelines, and then orders of produce are billed against the credit.

North Carolina has used the Department of Defense as a procurement and financial manager for farm to school purchases since 1997. This program began with a partnership between the North Carolina Department of Agriculture and Consumer Services and the Department of Defense. The Food Distribution Division of the Department of Agriculture and Consumer Services surveys schools to determine the needed quantities of produce. The Department of Defense then works with the Markets Division to identify farmers and to procure the food. The Food Distribution Division picks up the produce and delivers it to the schools, and the Department of Defense bills the schools for payment and pays the farmers. (North Carolina Farm to School, National Farm to School website: <http://www.farmtoschool.org/nc/index.htm>) In 2002, 60 of the 117 school districts in North Carolina purchased food through this program. In the 2002 calendar year the Department of Defense purchased \$289,057.83 of fresh produce from approximately 30 farmers for the Farm to School program (<http://www.farmtoschool.org/nc/programs.htm>). Produce purchased included strawberries, fall

decoration kits, pumpkins, blueberries, cantaloupe, watermelon, apples, cabbage, broccoli crowns, sweet potatoes, sweet potato chips, and tomatoes. (North Carolina Department of Agriculture, <http://www.ncagr.com/fooddist/Farm-to-School.html>).

Grower Collaboratives. Larger school districts have a high volume of produce purchases. Smaller farmers may not be able to provide the desired volume alone. There are several grower cooperatives across the country focusing on institutional and school customers.

Florida – New North Florida Cooperative was established in 1995 with the assistance of the USDA’s Agricultural Marketing Service, USDA’s Natural Resources Conservation Service, Florida A&M University and the West Florida Resource Conservation and Development Council. This cooperative is made up of small farmers, and has been successful in providing reliable deliveries to schools and providing increased income for the farmer members. In 2002 the cooperative sold to 15 school districts in 3 states, and has purchased equipment to provide additional processing. It is clear that membership in the cooperative is a key part of the marketing strategy and the profitability of farmers. (“Taking it to the Next Level”, in Farmer Resource Guide, p. 66-77)

California – The Gold Coast Growers Collaborative has been established in collaboration with farmers and the Community Alliance for Family Farms, a nonprofit that has been working as a forager for farm to school programs. The collaborative will provide the procurement link between local growers and institutional buyers such as schools, colleges and other educational programs. (see “Healthy Farms, Healthy Kids”)

PlacerGROWN is a farmer collaborative in Placer County, California. The membership organization maintains a website with a directory of farmers, ranchers, and other interested parties. Consumers can identify and contact producers of specific products in their area. The organization has an annual newsletter and is working primarily as a marketing organization to build the markets for Placer County agricultural products. ([www.placergrown.org](http://www.placergrown.org)).

In addition to the Gold Coast Growers Collaborative, in the Farm to School feasibility study conducted for the Monterey School District in 2003, the primary recommendation was to develop a collaborative of mid-size farmers that would work together with several school districts (“Smart Food”). It is still early to see the results in the Monterey School District.



## **School Food Policies**

Viability of farm to school programs depends on a number of variables. From the education and policy side, increasing the demand from school food service personnel for fruit and vegetable products that are locally available is critical. Demand for local produce can increase in different ways:

1. Substitution of local produce for imported produce.
2. Increasing quantities of produce used in schools by offering salad bars, baked potato bars, open bins of fruits and vegetables (“Children Love...”)

To make marketing to schools a significant part of the business plan for New England farmers, it is likely that there will need to be a combination of menu changes within schools to increase fresh fruit and vegetable consumption, and state policy guidelines for school food service that emphasize the importance of purchasing local produce. School food service personnel are committed to providing healthy meals within the constraints of their budgets. Increasing the amount of local foods purchased by schools will be most effectively done by supporting the interest of school food service and educational personnel in local foods with policies emphasizing fresh, healthy meals in the schools.

There is a wide spectrum of policies that will affect demand for farm to school programs. Policies to improve the nutritional quality of foods available in schools can be explicitly linked to an emphasis on purchasing local foods, wherever possible. For example, the Seattle, Washington School District has passed and is in the process of implementing a nutrition policy. Included in the policy is the goal to “improve the quality, variety and appeal of food offered in the school meal program.” While the Seattle policy does not directly address local produce purchases, the policy of the Santa Monica School District in California does include the purchase of local produce as a continuing part of the school meals program.

Up to date information on policies being enacted in different states and school districts is somewhat difficult to obtain. There is a recent, thorough review in a working paper prepared by the Center for Food and Justice at Occidental College. This working paper describes policies and provides sample text from different states and levels of government. Over 40 different policy areas and suggestions are incorporated. (Healthy School Food Policies, 2002; <http://www.farmtoschool.org/policy.htm>)

## **Food Crops Produced in Connecticut**

While Connecticut has a shorter growing season than California and Florida, and thus has more limited options for farm to school connections, there are still a wide range of fruit and vegetable crops that are available in Connecticut. These include apples, pears, peaches, strawberries, blueberries, melon, broccoli, lettuce, cabbages, cucumbers, potatoes, tomatoes, corn, squash, beans and pumpkins. School food service personnel have expressed interest in a number of these crops, and regularly purchase many of these items for use in their schools. With over 500,000 students, building connections between farms and schools in Connecticut could open a new market for local farmers.

## **Season Extension and Food Processing Capacity in Connecticut**

In addition to increasing the demand from schools, it is also important for farmers to make changes to improve their ability to meet the needs of schools. States as diverse as Florida, Iowa, and California have mentioned that food processing capacity increases the potential for Farm to School programs. Washed and cut lettuce and greens are more easily utilized by schools, as are cut carrots, snapped green beans and husked and cut corn on the cob. In addition, season extending technology such as greenhouses and crop covers may also increase the availability of local products during the school year.

## **Conclusions**

Connecticut has significant agricultural resources that could be utilized by school districts. Other states have managed to institutionalize the connections between farmers and schools in a way that benefits farmers economically and improves the nutritional quality of school meals. Action can be taken on a short term basis to encourage school districts to substitute Connecticut produce for imported produce, and on a longer term basis to increase the demand for fresh produce within the schools and improve the farmer capacity to meet the needs of the school food service.

Marketing relationships between farms and schools are complicated, and the experience of other farm to school programs show that the details of fiscal and delivery arrangements are critical. There are 166 school districts within Connecticut, and identifying appropriate marketing arrangements for interested districts is the next step. The farmer and school surveys that will be completed in the next few months should provide crucial information for making farm to school connections.



## References

**“Children Love Area Farmers’ Fare.”** Asheville Citizen Times, February 5, 2005.

**The Crunch Lunch Manual: A case study of the Davis Joint Unified School District Farmers Market Salad Bar Pilot Program and A fiscal Analysis Model.** Brillinger, Renata, Jeri Ohmart and Gail Feenstra. University of California Sustainable Agriculture Research and Education Program, March 2003.

(<http://www.sarep.ucdavis.edu/cdpp/farmtoschool/crunchlunch32003.pdf>)

**Evaluation of the Effectiveness of the Salad Bar Program in the Los Angeles School District.** Slusser, Wendy , MD, MS, Charlotte Neumann, MD, MPH, Linda Lange, DRPH, RN. School of Public Health University of California, Los Angeles. 1998

(<http://www.farmtoschool.org/ca/saladbareval.pdf>)

**Farm Fresh Start.** The Hartford Food System, 2000.

**Farm to School Program.** Macsuga, Rick, Dec. 3 2004.

(<http://www.ct.gov/doag/cwp/view.asp?Q=270554&A=1401>)

**Farm to School: Case Studies and Resources for Success.** Compiled by Allison Harmon. National Farm to School Program, 2004.

([www.foodroutes.org/doclib/243/FarmtoSchoolSuccess.pdf](http://www.foodroutes.org/doclib/243/FarmtoSchoolSuccess.pdf))

**Farm to Cafeteria Connections: Marketing Opportunities for Small Farms in Washington State.** Sanger, Kelli, Leslie Zenz. Washington State Department of Agriculture. November 2003.

**Farmer Resource Guide: Managing Risk through Sales to Educational Institutions.** Community Food Security Coalition and Center for Food & Justice, 2004.

**Healthy Farms, Healthy Kids: Evaluating the Barriers and Opportunities for Farm to School Programs.** By Andrea Misako Azuma and Andrew Fisher. Community Food Security Coalition, 2001.

**Healthy Farms and Healthy Kids: The California Farm to School Program.** Joshi, Anupama, Robert Gottlieb, Margaret Haase. Annual Report to W.K. Kellogg Foundation, October 2004.

**Healthy School Food Policies: A Checklist.** Mark Vallianatos. A Working Paper of the Center for Food and Justice, Urban and Environmental Policy Institute. October 2002.

(<http://www.farmtoschool.org/policy.htm>)

**The Oklahoma Farm-to-School Report 2003.** Oklahoma Food Policy Council.

([http://www.kerrcenter.com/ofpc/publications/Farm-to-School\\_report.pdf](http://www.kerrcenter.com/ofpc/publications/Farm-to-School_report.pdf)).

**Rethinking School Lunch.** 2004. Center for Ecoliteracy. A free, comprehensive web guide organized around 10 topical issue areas for transforming school lunch.

(<http://www.ecoliteracy.org/rethinking/rsi.html>)

**Smart Food: An assessment of Farm-to-School opportunities for schools and the schoolchildren of Monterey County.** Hester Parker, Ph.D. Luis Miguel Sierra, Keith Vandever. 2003. The [Smart Food Report has a nice analysis of selecting appropriate schools for pilot projects based on the distribution model chosen for the pilot and the characteristics of the schools].

([http://science.csumb.edu/~watershed/pubs/WI\\_SmartFoodReport\\_030604.pdf](http://science.csumb.edu/~watershed/pubs/WI_SmartFoodReport_030604.pdf))